

BIRDS NESTING IN THE DRAS AND SURU VALLEYS

BY

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The tour I am about to describe was undertaken in the summer of 1925 with a view to study bird-life in the Dras and Suru Valleys. Dras and Suru are situated on the north-east side of the Great Himalayan Range and in order to reach this tract one has to cross the Himalayan barrier.

The Dras and Suru rivers take their rise in the Himalayan Range, draining the north-east slopes thereof. They unite just below Kargil and eventually flow into the Indus, half-way between Skardo and Leh.

The climate in these valleys is much drier than that experienced in Kashmir but less dry than in Ladakh proper. As in the latter, trees and field crops can only be grown on irrigated land, consequently the hill sides are generally almost bare of vegetation but even so they are greener than the hills in Ladakh.

The Dras and Suru rivers, rising in the snow fields and glaciers of the Himalaya, bring down huge volumes of snow water during the summer months, at which season they are quite unfordable. In late autumn the flow is greatly reduced and in winter they freeze down to about 10,000 ft. altitude and are then covered with snow. The villagers who inhabit this inhospitable tract are confined to their houses by snow for about 5 months, and it is necessary for them to store up fuel, food and fodder for themselves and their flocks and herds for the whole of this period.

In the summer, the time of my visit, the climate is a perfect one, bright sunny days, practically no rain, hot in the sun but cool in the shade. Full use is made of the many little snow-fed streams and an elaborate system of irrigation channels by means of which the fields get water in turn every few days, enables the inhabitants to raise magnificent crops of barley, lucerne and fodder grass, the latter full of lovely alpine flowers.

The only trees are willows—and poplars, planted on irrigated land, and sometimes wild in the rare places where swamps occur. Elsewhere in the vicinity of streams, we find wild roses, with deep red flowers, and a small extremely thorny shrub (*Lonicera spinosa*). Bird life in this tract is quite as conspicuous as in the valley of Kashmir but the number of species is much less.

I will now proceed to describe my tour in diary form.

June 21. Srinagar to Ganderbal. 13 miles.

My kit went by boat, rather a circuitous route, taking about 10 hours. I rode a bicycle, doing the distance in about 1½ hours. The road is nearly level all the way and passes through rice cultivation with a pretty view over the Anchar and Dal lakes.

The day temperature was fairly warm but the night quite cool. This is due to the proximity of the Sind river now full of snow water, the temperature of which at 6 a.m. was found to be 49° Faht.

June 22. Walked about 4 miles from Ganderbal to a piece of swampy ground near Krahom, which I knew to be a favourite haunt of the Chinese Paddy Field Warbler (*Acrocephalus concinens concinens*). This swamp is usually partially inundated but this year had been drained to some extent, so it was only moist under foot. The grass and rushes were about 2 to 3 feet high. The above warbler was almost the only bird seen in the swamp and they were fairly numerous. They flit about in the grass in pairs or small parties, occasionally disappearing into the grass. They are not very shy. The song of this bird is short but pleasant and with few harsh notes. We searched systematically through the grass (myself and two Indians) for about 3 hours and found 13 nests, including 10 with fresh eggs and 3 ready for eggs. 3 or 4 appears to be the normal full clutch. The nests were woven on to 3 or 4 grass or rush stems only a few inches above the ground and were not easy to spot,

They were cup-shaped, fairly compact, and composed of dry grass and rush leaves and occasionally some moss neatly woven together with animal wool or vegetable cotton and lined with fine grass, moss fruiting stems, etc.

The eggs are nearly white or very pale greenish, with spots of sepia-brown and underlying markings of grey and neutral tint.

The average of 30 eggs is 17.0 by 12.7 millimetres.

The above species has previously been confounded with *Acrocephalus agricola*, and even in the Fauna of British India (Revised Edition) *A. concinens* is said to breed in Kashmir in rose bushes far from water, and *A. agricola* in swamps. As a matter of fact, *A. concinens* breeds in swamps throughout the valley of Kashmir and never away from water, whereas *A. agricola* does not breed or even occur in Kashmir at all.

June 23. Ganderbal (5,200 ft.) to Gaewan (6,400 ft.). 19 miles.

Our path led up the left bank of the river, my kit loaded on 7 ponies, going by the bridle path along the right bank.

On leaving Ganderbal a king crow's nest (*Dicrurus leucophæus stevensi*) was observed on a low branch of a chinar tree. It was just ready for eggs. On the march the following birds were noticed:—The Black Himalayan Bulbul (common), *Cryptolopha xanthoschista* (a few) the Rufous-tailed Flycatcher (several), Blue-headed Rock-Thrush *Petrophila cinclorhyncha* (a pair), Hodgson's Rose Finch, a pair, singing. Also *Cuculus canorus*, *poliocephalus* and *saturatus*.

A nest of the Kashmir Grey Tit, *P. m. kashmiriensis* was examined in a hole in a walnut tree, 5 feet from the ground. It contained 5 hard set eggs which were consequently not taken.

Arrived at camp under walnut trees close to spring. Beautiful view of snows up valley.

In evening found nest of Kashmir Roller *Coracias g. semenovi* in a hole in a hollow poplar tree, 50 feet from ground. The nest was far down in the hollow trunk and in-accessible.

Also a nest of the Indian Red-breasted Flycatcher (*Siphia parva hypertythra*) in a hole in a small Perrottia tree 5 feet from the ground. It contained only two partially incubated eggs.

Mosquitos a little troublesome in the forest, but by day time only.

June 24. A rainy, wet day. Searched for nests in forest, which consists here chiefly of a dense growth of Perrottia, a hazel-like large shrub or small tree, very valuable as fuel. The Red-breasted Flycatcher is common in this type of forest. I found two more nests of this bird in holes in Perrottia and Willow, 7 and 12 feet from the ground respectively. They each contained four rather hard set eggs.

A nest of the Dark-Grey Bush-Chat (*Oreicola f. ferrea*) was also found on the ground, at the foot of a wild Indigo bush, containing 4 fresh eggs.

June 25. Gaewan to Gaggangir (7,700 ft.). 12 miles.

The path still follows the Sind river, mostly on the right bank, the scenery getting finer and wilder and the hill sides more precipitous, as one progresses.

Shortly after leaving camp I saw a likely looking long, narrow, low island in the middle of the river to give access to which a pole had been thrown across from the mainland. This I crossed in fear and trembling, and got safely over. The island was then searched systematically for the common sandpiper (*Tringa hypoleuca*) whose eggs I had never taken.

The island was stony and sandy with a good many low bushes of tamarisk, indigofera, creepers, etc. My best expectations were more than fulfilled, as I put two sandpipers off their nests, well concealed in the low tamarisk scrub. The nests were mere hollows in the ground, lined with dead leaves and dry grass and contained 4 slightly incubated eggs in each. They average 35.5 by 26.0. Further on saw a Plumbeous Water Redstart building its nest in a hole in an old pollard willow, 6 feet above the water.

At Gaggangir I found *Hodgsonius phoenicuroides* and *Hocronis pallidus* both common. The former is rarely found breeding as low as 8,000 ft. Also saw greenfinches and the Rufous-tailed Flycatcher *Alseonax ruficaudus*.

The Eastern Meadow Bunting *Emberiza cia stracheyi*, is also a common bird here. Its song is the best of all the buntings I know. It bears some resemblance to that of the Goldfinch, but is less prolonged.

June 26. Gaggangir to Sonamarg (9000'.) 7 miles.

The road now ascends more rapidly, between lofty rocky precipices, and the river assumes the character of a cascade or mountain torrent.

The Brown Dipper (*C. pallasii tenuirostris*) and Himalayan Whistling Thrush (*M. horsfieldi temmincki*) are common here, the former with fully-fledged young, the latter with nests against boulders often in midstream.

A nest of the Large Crowned Willow-Warbler (*Acanthopneuste o. occipitalis*) was found in a hole in a small tree overhanging the path, 7 ft. from the ground. It contained 2 pure white fresh eggs.

Sonamarg is one of the most beautiful spots in Kashmir. It consists of open grassy 'margs' or glades surrounded by steep slopes clothed with Silver Fir, Blue Pine, Yew and Birch forest, with steep snow-clad slopes and bare rocky precipices rising to 17,000 ft. on all sides, and with a glacier in the near distance.

June 27. Climbed up about 2,000 feet above camp—

Heard Monal pheasants calling. Watched a pair of Tytler's Willow-Warblers (*Phylloscopus tytleri*) but was unable to locate their nest. They build high up in Fir trees and consequently their nests are very difficult to find.

Found a nest of the Sooty Flycatcher (*Hemichelidon sibirica gulmargi*) on a lower branch of a big silver fir. The nest, a neat little mossy cup, compacted with spider's web, contained 3 much incubated eggs.

Other birds seen were the Grey-headed Thrush (*Turdus c. castaneus*), the Kashmir Wren (*Troglodytes t. neglectus*) the Red-flanked Bush Robin (*Ianthia rufilata*) Large Crowned Willow Warblers, Greenfinches and Goldfinches, all common.

In the grassy meadows below the forest Skylarks were numerous and evidently breeding, but no nests were found. A bird shot appears to be *Alauda gulgula guttata*, the same as the Ladakh Skylark.

June 28. Sonamarg to Baltal. (9,450 ft.). 9 miles.

The road still follows the valley, which is here much wider and the stream more gently flowing.

The nest of a Himalayan Tree Creeper (*Certhia h. himalayana*) was examined, under the bark of a fir tree. It contained three young and one addled egg.

Camped at Baltal, beyond the Rest House, in the shade of cherries, maples, silver fir and birch. Red-flanked Bush robins, Wrens, Tree creepers, Tytler's, Hume's and the Large-Crowned Willow-Warblers all common here. Found a nest of the latter in a rift in a fallen birch tree, one foot from the ground. Nest of moss, lined hair. It contained 4 fresh eggs.

June 29. Halt. Baltal. Found wren's nest in roots of fallen tree, containing 5 half-fledged young. Also nest of Brooke's Nuthatch *Sitta kashmiriensis* in a woodpecker's nest hole in a dead birch tree, 16 feet up.

The hole had been reduced in size by a ring of hard mud masonry. The nest contained 3 young birds.

My spaniel put up a pair of monal on a steep hillside above my camp. They were accompanied by 3 or 4 chicks only about as big as quail, but still able to fly well. A nest of the Kashmir Cinnamon Sparrow (*Passer rutilans debilis*) in a hole in a rotten Birch tree, 20 feet from the ground (an old woodpecker's nest) contained 5 hard set eggs.

Watched a pair of Orange Bulfinches (*P. aurantiaca*) but they did not appear to have a nest.

The White-capped Redstart (*Chaimarrornis leucocephala*) was common here.

June 30. Baltal to Matayan (10,600 ft.). 15 miles.

The ascent of about 2,000 feet to the Zojila Pass is steep for the first 2 miles, and then very gradual. Reached the pass in 2½ hours—There was not much snow, and the bridle path is good. Saw the Central Asian Blackbird (*Turdus merula maximus*) a little below the pass.

On crossing the pass the descent is very gradual and easy. Saw a good many Redstarts (*Phoenicurus ochrurus phoenicuroides*) Stoliczka's Mountain Finch (*Fringilauda nemoricola altaica*) the Yellow-headed Wagtail (*Motacilla citreola citreoloides*), the Ladakh Skylark (*Alauda gulgula guttata*) and a Raven or two (*C. corax tibetanus*).

Found a nest of the Skylark, with 4 fresh eggs, at 11,000 ft. Also a Common Sandpiper's (*Tringa hypoleuca*) nest on an island in the stream at the same

altitude, with 4 freshly hatched young. Saw a good many Hodgsons' Rosefinch (*Carpodacus c. roseatus*) and the Gold-fronted Finch (*Metoponia pusilla*) near Matayan, but neither of these species is breeding yet.

Found several nests of (the Ladakh Chiffchaff) *Phylloscopus collybita* in the Tamarisk scrub by the river. Also several nests of the Yellow-headed Wagtail.

July 1. Matayan to Dras. (10,200 ft.). 14 miles.

A gentle descent along the broad valley of the Dras river, now a large unfordable stream, much swollen by snow water. Saw several Bluethroats, and captured a young bird, in mottled robin-like plumage with a rufous patch above the tail and no blue or red on the throat. Found several Chiffchaffs' nests with fresh eggs.

Saw Crag Martins (*Ptyonoprogne rupestris*), and House Martins (*Delichon urbica* subsp. ?) collecting mud for their nests.

Camped at Dras in an irrigated 'Bagh' under shade of willow trees. Goldfinches were numerous and singing—evidently about to breed. The Himalayan Goldfinch (*Carduelis c. caniceps*) breeds in May in Kashmir at from 5,000 ft. to 7,000 ft. and again in August at higher altitudes, about 10,000 to 11,000 ft., in Kashmir and Ladakh.

In evening crossed the river and searched long grass and scrub around cultivation on hillside. Put up a small bird at my feet in long grass and low briar. Searched carefully and discovered a rather deep nest of dry grass well concealed and almost on the ground in the grass and briar with 3 fresh eggs, pinkish white spotted all over, but most thickly at the broad end, with pinkish-claret markings. Secured parent bird after much patient waiting. She proved to be the Large-billed Bush Warbler (*Tribura major*). This was the first nest of this bird I had ever seen.

Subsequently a good many more nests of this species were found in the Suru Valley, all very well concealed, generally at the base of dense thorns (*Lonicera spinosa*) and buried in grass.

The call of this bird resembles the syllables chípi . . . chípi . . . chípi . . . repeated *ad lib*—about 2 to the second. They are adept skulkers and the hen bird usually leaves the nest running rapidly through the grass like a rat, eventually taking flight at some distance from the nest.

The average measurement of 34 eggs is 18.9 by 14.3.

Another Skylark's nest with 4 fresh eggs was also found in a lucerne field.

July 3. Dras to Labar. (12,400 ft.). 10 miles.

Made a very early start, Cuckoos, Skylarks and Redstarts in full song. Climbed up a long ascent to the Lamagus La (Pass) at 13,700 ft. Snow at pass, but nowhere else.

On the ascent found the Long-billed Horned Lark (*Otocorys alpestris longirostris*) and a Short-toed Lark (*Calandrella acutirostris* subsp. ?) very common. Secured specimens of both but found no nests. The Asiatic Cuckoo (*Cuculus c. telephonus*) was also quite common; also Redstarts, but few other birds were seen.

Labar camp is in a broad flat valley at the junction of two big streams. The valley is full of a yellow-flowering onion, and marmots, the Red or long-tailed variety (*Arctomys caudatus*) are exceedingly numerous.

Stoliczka's Mountain Finch (*Fringilauda n. altaica*) and the Horned Lark were common here. No fuel available, except dry Yak and horse dung.

July 4. Labar to Umba. (11,000 ft.). 8 miles.

The temperature on rising at 4.30 a.m. was 31° Fahr. and fording the stream under these circumstances was not pleasant!

The only new bird seen on this march was the Robin Accentor (*Prunella rubeculoides*) which was common at 13,000 ft. in the low willow and thorny scrub. Reached the Umba La (Pass) 14,400 ft. at 8 a.m. A glorious view of snowy mountains all round. From the Pass there is a long and very steep descent to Umba village at 11,000'. A few Yellow-billed Choughs, Eastern Meadow Buntings and Horned Larks were seen on the descent.

At Umba a Chiffchaff's nest in a low briar lined with willow down and black hair (no feathers) was found, containing 4 fresh eggs. The Bactrian Magpie was seen at Umba.

July 5. Umba to Sanku (9,970 ft.). 8 miles.

The path follows the Umba stream, almost unfordable at this time of the year. The valley contains a few willow trees, and a good deal of wild briar as well as the Ladakh Thorn (*Lonicera spinosa*).

Here the Gold-fronted Finch (*Metoponia pusilla*) and Hodgson's Rose-finch (*Carpodacus erythrurus roseatus*) were very common. Both red and white spotted Blue Throats were also seen, in the thorny scrub.

Several Gold-fronted Finch's nests were found in low briars, 2 or 3 feet from the ground, containing from 5 to 3 eggs, mostly fresh. The nest is composed of grass and weed stems, neatly lined with a dense layer of white willow cotton, and sometimes a little hair.

The Gold-fronted Finch is curiously local in these hills. They breed chiefly at an elevation of about 11,000 ft., and where they breed a good many nests may generally be found, but many other similar and apparently suitable places will be found unoccupied. They are very partial to the wild rose bushes as nesting sites, but they occasionally build also in dwarf willows and still more rarely on the face of steep rocks.

The eggs are white or skim-milk blue, spotted and sometimes streaked with pink or madder brown.

25 eggs average 17.9 by 12.8.

July 6-9. Halt. Sanku.

Sanku is a large village on an extensive flat above the Suru river, with much cultivation (barley, lucerne and fodder grass) intersected by irrigation channels, waste land between fields being occupied by dense patches of the Ladakh Thorn.

There are also a good many willow trees.

Bird life was found to be exceeding rich in and around Sanku. The Kashmir Sparrow (*Passer domesticus parkini*) is by far the commonest bird.

Sky larks, the Eastern Meadow Bunting, Chiffchaffs, White Throats, Hodgson's Yellow-headed Wagtail, Blue Throats (chiefly the white-spotted variety), Hodgson's Rose Finch, Magpies and Large-billed Bush-Warblers are all common birds here. The Raven was also seen here, but is rare.

During my stay at Sanku nests of all the above species were found (with the exception of the raven). These included many nests of the Rose Finch and Yellow-headed Wagtail, and several nests of Redstarts, Blue Throats, White Throats and Large-billed Bush-Warblers. Also one nest with four fresh eggs of the Blue Rock-Thrush (*Monticola solitaria pandoo*). The eggs of this species are pale blue, sometimes spotless, not infrequently spotted with faint pinkish markings. Blue Throats were fairly common in the Ladakh thorn patches. The white spotted variety was decidedly the more numerous. A good many broods of young birds were seen out of the nest but several nests of the white spotted variety were found with 4 and 3 eggs.

The nests are built on the ground at the base of thorny bushes and are well concealed. They are if possible more difficult to locate than those of *Tribura major*. They are made of dry grass. The eggs are a dull, uniform sage green with or without pale reddish freckling, which sometimes almost obscures the ground colour.

The two varieties of Blue Throat (*Cyanosyloia suecica*) the red spotted and the white spotted, are found breeding together in Ladakh. They have identical habits and their nests and eggs are indistinguishable. It seems not improbable that they are only dimorphic forms of one and the same species.

The average measurement of 20 eggs is 19.1 by 14.3. Hume's Lesser White Throat which was also found fairly common in the Ladakh thorn scrub was also breeding. The nest is a flimsy, transparent structure of fine grass stems consolidated with spider's web or a little wool, and is placed in a briar or thorny bush 2 or 3 feet from the ground.

The eggs, three or four in number, are pale cream or almost white in ground, spotted with yellowish brown or dark sepia brown and with underlying grey markings.

They average 18.5 by 13.7.

July 10. Sanku to Hjook (10,550 ft.). 11 miles.

Camped close to river on a big grassy flat, opposite large islands covered with thorny scrub, tamarisk, etc. Blue Throats and *Tribura* were common here and nests of both were found on the Islands. The Ibis-bill (*Ibidorhynchus*

struthersi) and the common Tern (*Sterna hirundo hirundo*) were also observed breeding here on inaccessible islands.

A Gold Finch's nest ready for eggs, in a small willow sapling, a Chiffchaff's nest and the nest of the Short-toed Lark with 3 fresh eggs were also found.

The Himalayan Turtle Dove (*Streptopelia orientalis meena*) was also noted.

July 11. Hjook to Suru. (10,600 ft.) 4 miles.

The view of Nunkun Mountain (23,400') at the head of the valley and about 15 miles distant was most imposing. Found nests of *Tribura*, White-spotted Blue Throat, Chiffchaff and White Throat, all with fresh eggs.

July 12 to 16. Halt Suru.

The country round Suru is quite similar to that at Sanku, and the same birds were found common, with the addition of the Short-toed Lark (*Calandrella brachydactyla*) and the Long-billed Horned-Lark (*Otocorys a. longirostris*) a joint breeding colony of which was discovered about 1,000 feet above the camp.

The type of locality which these birds select for breeding purposes is a gentle mountain slope covered with scattered *Artemisia* and *Trollius* plants at from 11,000 to 13,000 ft. The nests of these two species resemble each other, being placed in slight depressions in the ground excavated by the parent bird and lined with a few blades of dry grass and a layer of fine, very soft vegetable down, partly, if not entirely, from the *Artemisia* plant. Nests are placed in the shelter of an often tiny *Artemisia* or *Trollius* plant.

Three is the full complement of eggs in both cases and not infrequently 2 only are laid.

The eggs of the Short-toed Lark are putty colour mottled all over with yellowish brown. They average 20·7 by 14·4.

The eggs of the Long-billed Horned-Lark are whitish, marked all over, and especially heavily at the broad end, with greyish brown or dark brown.

They average 24·5 by 17·4.

Eggs of the Ladakh Sky Lark, many of which were taken in the Dras and Suru valleys, resemble those of the Horned-Lark in colour but are decidedly smaller, averaging 22·9 by 13·3.

The Hobby was also seen at Suru.

Hodgson's Pied Wagtail (*Motacilla alba hodgsoni*) was also not uncommon by the river and two nests on the ground among stones were found.

July 17. Suru to Parkachik (11,500 ft.). 6 miles.

The river between Suru and Parkachik takes a very large bend. By the river the distance is nearly 14 miles but by a short cut over a pass it is reduced to 6.

The village Parkachik is perched on rocky prominences 500 feet above the river. There is, however, much fine cultivated land, with low bush cover and rocky precipices near by, an ideal place for birds.

Nests of the Crag Martin (*Pytnoprogne rupestris*) and of the European House Martin (*Delichon u. urbica*) the latter with eggs, were found under overhanging cliffs. Most nests of these birds were inaccessible without a ladder, an article which is quite unprocureable in a country where trees do not grow.

This (11,000 ft.) was the highest locality where *Tribura major* the Ibis-bill and the common Sandpiper were found breeding.

The Red-billed Cough (*Pyrrhocorax pyrrhocorax*) and Raven were both fairly common at Parkachik, where they doubtless breed on the cliffs in the early spring.

July 18. Parkachik to Gulma Tongas. (12,700 ft.) 12 miles.

The path, difficult in places, follows the river on the right bank. About half a mile above Parkachik the great Ganri glacier, taking its origin on the north-western slopes of Nunkun, terminates in the Suru River, which actually rushes past the snout of the glacier.

On the march several nests of Hodgson's Rose Finch (*Carpodacus e. roseatus*) and one of the White Throat (*Sylvia althea*) were found in a large patch of wild roses at 12,000 ft. This is about the upper limit for both these species.

The nest of this Rose Finch is made of dry grass, and is lined with fine roots, or with hair, or a mixture of both. The eggs are a beautiful blue, sometimes spotted, but more frequently marked at the broad end with spots or streaks of black or reddish brown. They average 20·8 by 14·9.

The male bird has a short but cheery song of 4 to 7 notes only, repeated at short intervals.

A Ruby Throat's nest (*Calliope pectoralis pectoralis*) was found on the march at the foot of a dwarf willow, containing a young fledged cuckoo. It was discovered by my spaniel and his barking led me to the spot where I found the young cuckoo defending itself from the dog in the way peculiar to young cuckoos—a regular little spitfire.

Shortly afterwards a Redstart (*P. ochrurus phœnicuroides*) was observed feeding another young cuckoo, well able to fly. How the cuckoo managed to deposit its egg in the nest of this redstart is a mystery, for the nest is placed in a small hole among stones. Many nests of this redstart were found in the Suru valley, generally under stones on steep hill sides or in stone walls. The nests are composed of grass and weed stems lined with hair and with often a few feathers. The eggs are generally 4 in number, very pale blue, sometimes almost white, mostly unspotted but occasionally faintly pink-spotted eggs are found. The eggs measure about 20.0 by 14.5.

At Gulma Tongas a few Green Sandpipers (*Tringa ochropus*) were seen by a small stretch of water. This is a very early date for the return of these birds from their breeding grounds in the far North.

The Western Red-breasted Rosefinch (*Pyrrhospiza punicea humii*) and Brandt's Mountain Finch (*Fringilauda brandti hæmatopyga*) were both seen near Gulma-Tongas. Both are birds of very high altitudes, being found from 12,000' to 17,000'. The former is a large, handsome bird with a good deal of red on it. The latter is plain coloured, dark about the head with a pink tinge on the rump feathers.

July 19. Gulma Tongas to Zulido. 13,000'. 11 miles.

This march traverses a considerable area of swampy ground and marsh, with several species of dwarf willow forming thickets in places. This tract is known as Rungdum.

The Eastern Redshank (*Tringa totanus eurhinus*) was fairly numerous here, but from the behaviour of the birds they must have had young. Other birds common in and near the swamp were the Yellow-headed Wagtail (*Motacilla c. citreola*) Tickell's Willow-Warbler (*Phylloscopus affinis*) the Ladakh Chiffchaff, the Robin Accentor (*Prunella rubeculoides*) and the Himalayan Ruby Throat (*Calliope p. pectoralis*). Nests of all these species were found, with eggs or young, but systematic searching was difficult and painful owing to the clouds of mosquitos (a large *culex*) which attack one in incredible numbers, but only in the day time, both in and near the swamp area. Both the above species of *Phylloscopus* were observed catching mosquitos on the wing.

Common Terns (*Sterna h. hirudo*), were also seen near the river. As one approaches Zulido the valley alters in character and the whole expanse across the valley, which is here about $\frac{1}{2}$ to $\frac{3}{4}$ mile wide, is a desert of stones and sand. Here the Lesser Central Asian Plover (*Charadrius mongolus albitrons*) was found to be fairly common. The area was exactly the type of locality which this species selects for breeding. No eggs were found but young birds were running about with their parents, some apparently only just hatched.

July 20. Zulido to Gulma Tongas.

On the return march saw many Blue Hill Pigeons (*Columba rupestris turkestanica*) and a few Snow Pigeon (*C. leuconota leuconota*) the former are common throughout the higher mountains in Ladakh. The latter keep to the higher slopes of the Himalaya. I fired into a flock of the former feeding in a field and killed 8 birds at one shot! They afford excellent eating.

July 21. Gulma Tongas to Parkachik.

Found two Gold-fronted Finches' (*Metaponia pusilla*) nests, with 4 and 5 eggs respectively, at 12,500 ft. in dwarf willow trees 6 feet from the ground.

July 22. Parkachik to Suru.

Decided to follow the river, a long detour of about 14 miles. The first few miles was through good bird country, with plenty of rose bushes. Here I found a Rose Finch's nest with 5 hard set eggs, a very unusually large number. Half-way, at the bend of the river, it passes through an extraordinary narrow gorge, almost a cañyon, so narrow in places that one could jump across, with the river roaring down below. Boulders from the slopes above have fallen

into this narrow defile and have bridged it in several places and my laden ponies crossed over without difficulty. Here I saw Whistling Thrushes White-capped Red-starts and the Kestrel. The path from the gorge onwards traverses much rich cultivation and pasture land, full of wild flowers, and with the usual birds previously described.

July 23. Halt Suru.

Found nests of the Large-billed Bush Warbler *Tribura major* and Rose Finches with fresh eggs. Also a nest of the Eastern Meadow Bunting (*Emberiza cia stracheyi*). This bird is extremely common in Kashmir between 6,000 ft. and 12,000 ft.—occasionally even higher. They breed throughout their range in June and July. The nest is placed on the ground, concealed in grass or low herbage, generally on a steep bank; it is composed of grass and lined with hair. Three eggs, never more, are laid which are dull white in ground, beautifully marked with fine chocolate or purplish brown streaks and lines, especially in a zone at the broad end.

They measure about 21.5 by 15.7.

July 24. Suru to Donara. (12,300'). 10 miles.

The path to Donara follows a tributary of the Suru River which at this time of the year is unfordable, except near Donara. The first 5 miles one passes through barren, uninteresting country. In the latter half of the journey more birds were seen, and on reaching Donara, where the valley opens out and where there are swamps and plenty of scrub willow, birds were seen in abundance, e.g., Kashmir White-breasted Dippers, Chiffchaffs, Tickell's Willow-Warblers, Yellow-headed Wagtails, Hodgson's Rose Finches, Ruby Throats, Martins, Hodgson's Pied Wagtail, Hodgson's Pipits and the Cuckoo—all breeding and the Cuckoo still calling.

About 1,000 ft. above the camp, at over 13,000 ft. I found the nest of Stoliczka's Mountain Finch (*Fringilauda nemoricola altaica*) a common bird on the Kashmir hills, but one whose eggs I had never previously found. The nest was in a hole under a big rock on the barren hill side, and it would not have been discovered had it not been betrayed by the sudden exit of the mother bird. A little earth excavation disclosed the nest, about 9 inches below the rock. It was composed of dry grass and weeds, lined with hair and contained four beautiful pure white eggs (pinkish before being blown). They measure (average) 20.9 by 15.4.

Mosquitos at Donara were if possible even worse than at Rungdum, a veritable plague by day, especially in the mornings and evenings until about an hour after sunset, when they all disappeared for the night.

July 25. Donara via Bhotkhol Pass to camp below glacier 11,500 ft. 10 miles.

Started at dawn and climbed steadily, at first over undulating rocky ground with dwarf willow in favourable places, and latterly over a glacier of semi-transparent ice, intersected by endless little parallel rivulets of water from the ice melting in the hot sun. Several Red-breasted Rose Finches (*Pyrrhospiza punicea*) were seen, apparently breeding on the steep rocky slopes, but I was unable to find any nests. The top of the Pass, 14,400 ft. was reached at 9 o'clock. A steep descent of some 800 feet brought us to a beautiful sunny spot covered by alpine flowers Edelweis, dwarf forget-me-nots, lark spur, purple asters, thyme, campanulas, etc. From this point the path follows the course of a great glacier, about 15 miles long which takes its rise on Nunkun Mountain. Progress was now slow, difficult and somewhat dangerous, owing to the fact that the surface of the glacier is intersected by cross, parallel crevasses, some narrow enough to be jumped but many too broad, and all very deep. In due course, however, they were all circumvented by my pack ponies. Then the route follows a rocky moraine, very difficult ground for ponies. This also was safely negotiated and we were all glad to reach our camp at the foot of the glacier at 4 o'clock after over 10 hours' hard going.

July 26. Halt Kanital (camp below Glacier).

A pleasant camp, with a spring of fresh water and plenty of fuel. The river as it leaves the snout of the glacier is a huge volume of dirty water, quite unfordable. There is a good deal of swampy ground near our camp with dwarf willow, etc. and plenty of birds but curiously enough, though the locality is similar in every way to Donara (on the other side of the pass) there are here absolutely no mosquitos. Birds common round this camp were the

Wren, Mountain Finches, Hodgson's Pipit (with young) Yellow-headed Wagtail, Redstart, Ruby Throat, Robin Accentor, Tickell's Willow-Warbler, Gold Finch, Hodgson's Pied Wagtail, Snow Pigeon and Griffon Vulture. At this camp two nests of the Himalayan Rubythroat were found, one containing two fresh eggs of this bird and one of the Asiatic Cuckoo (*Cuculus canorus telephonus*). The Rubythroat's eggs are greenish blue, faintly marked at the broad end with rufous. The cuckoo's egg is a rather deep spotless blue!

The other nest contained four fresh eggs.

Rubythroat's nests are made of dry grass and are domed, with a large lateral entrance. They are placed on the ground often under a stone on a steep bank or hillside, concealed in grass. The bird has a very fine song.

The eggs measure, on an average, 21.0 by 15.3. The cuckoo's egg measures, 25.4 by 19.5.

July 27. Kanital to Wan kadal. (9,950 ft.) 16 miles.

The path descends the big Wardwan Valley, a very gentle descent over grassy meadows and stony bed of river. A feature of the first few miles is the very big springs of water gushing out of the almost vertical limestone cliffs, several hundreds of feet above the valley, which give rise to picturesque water-falls. Two almost ice-cold streams had to be forded on the way. The usual birds were seen on the march, but no Bluethroats, Chiffchaffs, Gold-fronted Finches, Horned Larks or Short-toed Larks. A Missel Thrush (*Turdus v. bonapartci*), and some Jungle crows were seen at about 11,000 ft.

July 28, 29. Halt. Wan kadal.

The bridge over the Suru river having been washed away I was obliged to halt here, sending down to Suknes for men to rebuild it.

Climbed up to about 11,000 ft. and found a couple of pairs of the White-browed Rose Finches (*Propasser thura*) in the dense juniper scrub. This is a rather large, handsome bird, with no song but rather a harsh whistle repeated 6 to 8 times, not unlike the call of the White-cheeked Nuthatch (*Sitta l. leucopsis*). This bird is rather scarce, in Kashmir being found sparingly in or near juniper scrub at from 11,000 to 12,000 ft. They appeared to be breeding but though I searched carefully here and on two or three subsequent occasions, I could find no nests. They undoubtedly build in the juniper. The nest of this bird has never, I believe, been taken. A pair of Himalayan Gold Finches (*Carduelis c. caniceps*) were observed building high up in a birch tree, at 11,000 ft. and a pair of Wrynecks (*Iynx torquilla japonica*) were feeding a brood of full grown young in a hole in another birch close by. This is a very high altitude for this bird.

Other birds seen near the camp were the Blue-fronted Red start (*Phoenicurus frontalis*) the Pink-browed Rose-finch (*Propasser rhodochrous*) Hodgson's Short-wing (*Hodgsonius p. phoenicuroides*) (with young able to fly) the Red-browed Finch (*Callacanthus burtoni*) the Red-flanked Bush-Robin (*Ianithia rufilata*) the Kashmir Wren (*Troglodytes t. neglectus*) Hume's Willow Warbler (*Phylloscopus humii*) and the Large-crowned Willow-Warbler (*Acanthopneuste o. occipitalis*).

July 30. Wan kadal to Suknes. (8,950 ft.) 6 miles.

This was a pouring wet day. Suknes is a big village, the highest in the Wardwan Valley, with extensive cultivation. Gold Finches were very common round the village but no new birds were seen, Tribura major was heard calling in the field crops.

July 31. Suknes to Rangmarg. (10,500 ft.) 13 miles.

Retraced our steps as far as the bridge at Wan kadal and then climbed up a big side 'Nala' and camped near a snow bridge, in an open valley devoid of trees, except a few birch.

Stoliczka's Mountain Finch (*Fringilauda n. altaica*) and Skylarks were exceedingly numerous but no new birds were seen. A pair of red bears had just killed 10 sheep out of a flock, in one night, but having no rifle I could take no steps to avenge their death.

August 1. Rangmarg to Zojpal. (11,100 ft.) 9 miles.

A very steep ascent, barely practicable for laden ponies, a rise of 3,500 vertical feet in about 3 miles or less! The pass between the Wardwan and

Lidar Valleys was reached in about 5 hours. The elevation is 14,000' and there was snow lying about. Thence a fairly steep descent brought us down to Vaojan near the beautiful Shisha Nag lake—elevation 11,600 ft. This lake, about a mile in length, is near the source of the Lidar River and about 9 miles below the sacred cave of Amarnath, to which an annual pilgrimage of thousands of Hindu 'Sadhus' takes place in August. I met the procession of pilgrims, on their way up. They were very inadequately clothed and the weather being extremely cold and wet they must have endured great hardships. I subsequently heard that some had died from exposure.

My camp at Zoipal was 2 or 3 miles below the Lake.

August 2. Halt Zoipal.

Very wet and cold. Fuel scarce and difficult to procure. Searched Juniper for nests of the White-browed Rose Finch. Saw several birds but no nests.

August 3. Zoipal to Tanin. (9,250 ft.) 5 miles.

A short steep march down the Lidar Valley the path being often high above the river. Tanin is at the junction of two big branches of the Lidar River. There is much forest on the hills around, consisting of Birch and Silver fir, Maples, etc.

Here it was considerably warmer, 54° Faht. against 47° at the last camp, and fuel was available galore. The Himalayan Turtle Dove was numerous and I shot several for the pot.

August 4-5. Halt Tanin.

Spent these two days searching the silver and birch forest for nests of the Orange Bulfinch (*Pyrrhula aurantiaca*). This is a very handsome Bulfinch fairly common in Kashmir, breeding in forest at from 9,000 to 11,000.

Several pairs were seen and one nest was found made of thin sticks and lined with fine roots on a horizontal branch of a small silver fir sapling. The nest was 4 feet from the ground and was sheltered by a second branch above it. The young had apparently just left the nest.

A nest of the Pink-browed Rose Finches (*Propasser rhodochrous*) was found in a similar situation to the Bulfinch's nest, at 10,000 ft. It was composed of fine sticks, birch bark paper, and fine weed and grass stems lined with hair and contained 5 fresh eggs, rather deep blue, sparingly spotted at the large end with black spots.

The eggs measure (average) 18.5 by 14.1 mm.

Aug. 6. Tanin to Astanmarg. (11,000 ft.) 6 miles.

A delightful camp in open birch forest under a lofty waterfall. Choughs, the red-billed variety, very numerous. Also Blue-fronted Redstarts and Rubythroats, Hodgson's Rosefinches, and the White and Pink-browed Rose finches were seen, the latter in the Juniper scrub but no nests were found.

Aug. 7. Halt. Astanmarg.

A further search was made for Rosefinch nests with no success.

Aug. 8. Astanmarg to Phraslun (8,000 ft.) 11 miles.

Camped at a charming spot under Blue pine trees on a grassy flat by the Lidar River which is here deep and slow-flowing.

Aug. 9. Halt Phraslun.

Searched the surrounding forest for Bulfinches with no success. Found nests of the Striated Laughing thrush (*Trochalopteryx lineatum*) and Himalayan Turtle Dove with eggs. Shot a large red Flying Squirrel (*Pteromys inornatus*). Birds seen here were the Western Variegated Laughing Thrush (*Trochalopteryx variegatum simile*) Ibis-bills, Hodgson's Pied and Grey Wagtails, the Brown Dipper, the Plumbeous Water Redstart, the Cinnamon Sparrow and the Himalayan Whistling Thrush.

Aug. 10. Phraslun to Pahlgam. (7,300 ft.) 5 miles.

Went down the left side of the river through fine forest of Silver fir, Spruce, Blue Pine, Yew, Maple, Walnut, Hazel and Perrottia. No new birds seen.

Aug. 11. Pahlgam to Aroo. (8,500 ft.) 7 miles.

A pleasant camp on grassy slope under Blue Pine trees, 500 feet above village.

Aug. 12. Aroo to Lidarwat. (9,000 ft.) 7 miles.

Heavy rain till 11 o'clock. Then it cleared and we marched with wet tents. The camp at Lidarwat is in an open grassy glade with lofty silver fir forest on both sides and the river 100 feet below.

Snow fell down to 11,000 ft. to-day which is extraordinary for the time of year.

Aug. 13 to 18. Halt Lidarwat.

Weather was very bad for the first 3 days, heavy rain, swollen streams and very cold.

Spent much time hunting for Bulfinches. Saw a few, including one young bird just out of the nest. This was in Silver fir forest at 9,000 ft.

Visited two pretty little lakes Tar Sar and Sona Sar at about 13,000 ft. One 7 and the other 8 miles from camp. Found nest of the Pink-browed Rosefinch (*P. rhodochrous*) in a thicket of dwarf willow at 11,000 ft. It contained 3 young and 2 eggs about to hatch. Other birds seen were Buzzards, at 13,000' (probably *Buteo ferox*) the Central Asian Blackbird (*Planesticus maximus*) Scully's Owl (*Syrnium biddulphi*). This latter is common from 8,000 ft. up to the limit of tree growth at 11,000 ft. It replaces *Syrnium nivicola* of the Himalayas north of Simla and Mussoorie. Its call is quite distinct from that of the latter species, being a loud *Hoo*--followed after an interval of about five seconds by a rolling hoot. *Hoo-oo-oo-oo*.

Aug. 19. Lidarwat to Srinagar. 64 miles.

Marched down to Pahlgam and there got a seat in a car to Srinagar where I arrived at 2 o'clock. It was hot in Srinagar, but the coolness of autumn cannot now be long delayed.

Thus ended a very pleasant trip through interesting country and grand scenery. On the whole, I was satisfied with results, having taken three kinds of eggs new to my collection and many others more or less rare.

I was however disappointed in not getting the eggs of either the White-browed Rosefinch (*Propasser t. thurus*) or the Orange Bulfinch (*Pyrrhula aurantica*)—other ornithologists will doubtless follow and succeed where I have failed.